

# AMPKa1/AMPKa2 Mouse mAb

Catalog No.: A27099

## Basic Information

### Observed MW

64kDa

### Calculated MW

64kDa/65kDa

### Category

Primary antibody

### Applications

WB,IHC-P,ELISA

### Cross-Reactivity

Human, Mouse, Rat

### CloneNo number

AMC0695

## Background

The protein encoded by this gene belongs to the ser/thr protein kinase family. It is the catalytic subunit of the 5'-prime-AMP-activated protein kinase (AMPK). AMPK is a cellular energy sensor conserved in all eukaryotic cells. The kinase activity of AMPK is activated by the stimuli that increase the cellular AMP/ATP ratio. AMPK regulates the activities of a number of key metabolic enzymes through phosphorylation. It protects cells from stresses that cause ATP depletion by switching off ATP-consuming biosynthetic pathways. Alternatively spliced transcript variants encoding distinct isoforms have been observed.

## Recommended Dilutions

**WB** 1:1000 - 1:2000

**IHC-P** 1:100 - 1:500

**ELISA** Recommended starting concentration is 1 µg/mL. Please optimize the concentration based on your specific assay requirements.

## Immunogen Information

### Gene ID

5562/5563

### Swiss Prot

Q13131/P54646

### Immunogen

Recombinant protein (or fragment). This information is considered to be commercially sensitive.

### Synonyms

AMPKa1/AMPKa2

## Contact

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## Product Information

### Source

Mouse

### Isotype

IgG2a κ

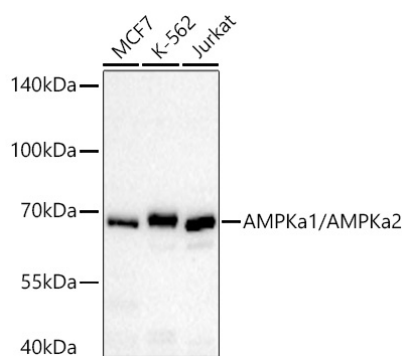
### Purification

Affinity purification

### Storage

Store at 4°C. Avoid freeze / thaw cycles.  
Buffer: PBS with 0.1% Sodium azide, pH7.3.

## Validation Data



Western blot analysis of various lysates using AMPK $\alpha$ 1/AMPK $\alpha$ 2 Mouse mAb (A27099) at 1:1000 dilution incubated overnight at 4°C.

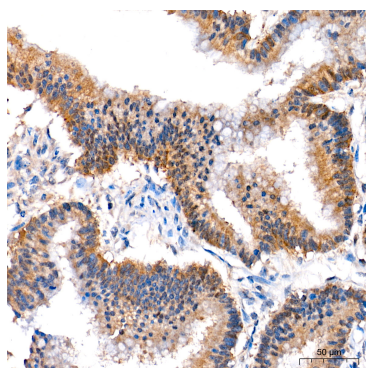
Secondary antibody: HRP-conjugated Goat anti-Mouse IgG (H+L) (AS003) at 1:10000 dilution.

Lysates/proteins: 25  $\mu$ g per lane.

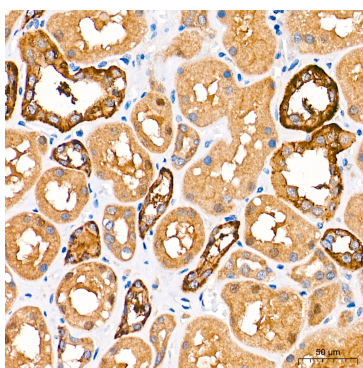
Blocking buffer: 3% nonfat dry milk in TBST.

Detection: ECL Basic Kit (RM00020).

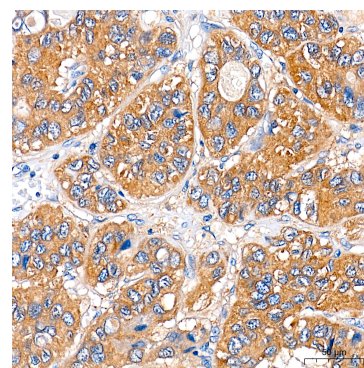
Exposure time: 45s.



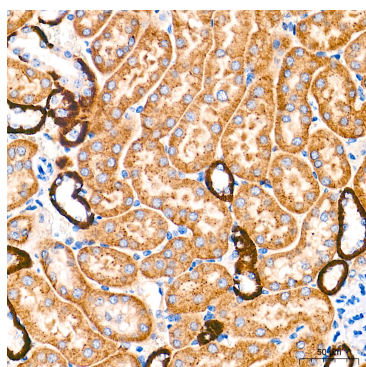
Immunohistochemistry analysis of paraffin-embedded Human colon carcinoma tissue using AMPK $\alpha$ 1/AMPK $\alpha$ 2 Mouse mAb (A27099) at a dilution of 1:200 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



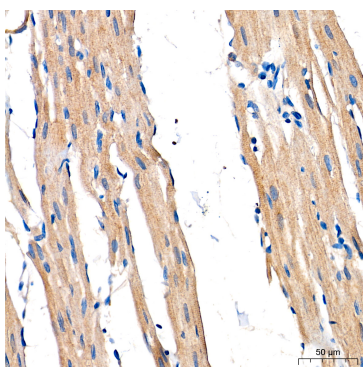
Immunohistochemistry analysis of paraffin-embedded Human kidney tissue using AMPK $\alpha$ 1/AMPK $\alpha$ 2 Mouse mAb (A27099) at a dilution of 1:200 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



Immunohistochemistry analysis of paraffin-embedded Human liver cancer tissue using AMPK $\alpha$ 1/AMPK $\alpha$ 2 Mouse mAb (A27099) at a dilution of 1:200 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



Immunohistochemistry analysis of paraffin-embedded Mouse kidney tissue using AMPK $\alpha$ 1/AMPK $\alpha$ 2 Mouse mAb (A27099) at a dilution of 1:200 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.



Immunohistochemistry analysis of paraffin-embedded Rat heart tissue using AMPK $\alpha$ 1/AMPK $\alpha$ 2 Mouse mAb (A27099) at a dilution of 1:200 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.